

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled).

2. (canceled).

3. (currently amended): An abnormality detecting apparatus for an automatic speed changer, comprising:

a speed change controlling means for controlling the automatic speed changer;

a learn controlling means for optimizing an rpm change at the time of speed change control by said speed change controlling means;

a learned value change supervision controlling means for supervising a change in the learned value of said learn controlling means, counting up a learned value non-change counter if there is ~~teno~~ change in the learned value, and storing the learned value as converged when the value of said learned value non-change counter is not less than a predetermined value; and

an abnormality detection controlling means for storing that the condition is abnormal when the learned value is changed again after the judgement that the learned value change has been once converged by said learned value change supervision controlling means,

wherein said abnormality detection controlling means is adapted to set a threshold value after the convergence of the learn in a case where a predetermined threshold value after the convergence of the learn has not been set, while in a case where the threshold value after the convergence of the learn has been set, said abnormality detection controlling means stores that the condition is abnormal when the current learned value exceeds the set threshold value after the convergence of the learn.

4. (currently amended): An abnormality detecting apparatus for an automatic speed changer, comprising:

a speed change controlling means for controlling the automatic speed changer;

a learn controlling means for optimizing an rpm change at the time of speed change control by said speed change controlling means;

a learned value change supervision controlling means for supervising a change in the learned value of said learn controlling means, counting up a learned value non-change counter if there is ~~teno~~ no change in the learned value, and storing the learned value as converged when the value of said learned value non-change counter is not less than a predetermined value; and

an abnormality detection controlling means for storing that the condition is abnormal when the learned value is changed again after the ~~judgement~~ judgment that the learned value change has been once converged by said learned value change supervision controlling means, wherein said abnormality detection controlling means is adapted to judge whether the

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change direction of the learned value of the current case is the same as or reverse to that of the previous case, to count up a learned value change direction reversing number counter in the case where the change direction is reverse, and to store the condition as abnormal when the value of said learned value change direction reversing number counter is not less than a predetermined value.

5. (canceled).

6. (canceled).